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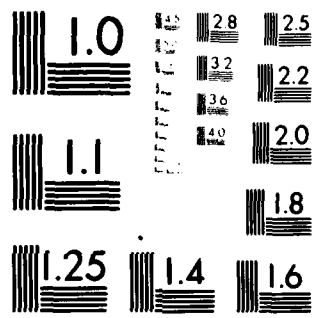
ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
12821A LANCE, MISSILE NUMBER 4998, ROUND NUMBER 342 NCL, 5 MARC--ETC(U)
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MARCH 1980
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METEOROLOGICAL DATA REPORT

12821A LANCE
Missile Number 4998
Round Number 342 NCL
5 March 1980

by

White Sands Meteorological Team

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 12821A LANCE, Missile Number 4998, Round Number 342 NCL are presented in tabular form.		

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INTRODUCTION

12821A LANCE, Missile Number 4998, Round Number 342 NCL,
was launched from RATSCAT, White Sands Missile Range (WSMR), New Mexico,
at 0919:01 MST on 5 March 1980. The scheduled launch time was
0900 MST.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), Wind direction and speed, and cloud cover were made at the RATSCAT Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RAPTS T-9 pibal observation at:

SITE AND ALTITUDE

RATSCAT 7,000 and 11,500 FEET

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to HIGH AS POSSIBLE feet in 500-foot increments.

SITE AND TIME

HOLLOMAN 0915 MST
JALLEN 0915 MST

TABLE 1. Surface Observations taken at 0915 MST,
5 March 1980, at RATSCAT, 12821A LANCE,
Missile Number 4998, Round Number 342 NCL.

ELEVATION	3957	FT/MSL
PRESSURE	882.9	MBS
TEMPERATURE	5.2	°C
RELATIVE HUMIDITY	69	
DEW POINT	0.0	°C
DENSITY	1100	GM/M ³
WIND SPEED	04	KTS
WIND DIRECTION	300	DEGREES
CLOUD COVER	CLEAR	

PILOT BALLOON MEASURED WIND DATA

TABLE 2

RELEASED FROM RATSCAT

DATE 5 March 1980

TIME 0853 MST

COORDINATES (WSTM)

$$X = 513,312.04$$

Y - 357,958.56

14 - 3964.61

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHTS ARE METERS AGL _____ OR FEET AGL xx.

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC	300	07
100	303	02
200	338	05
300	300	08
400	292	13
500	302	06
600	305	03
700	021	03
800	008	03
900	005	06
1000	004	06
1100	006	05
1200	025	04
1300	014	04
1400	002	03
1500	341	04
1600	345	03
1700	338	03
1800	341	02
1900	322	03
2000	312	04
2100	307	03
2200	296	03
2300	285	04
2400	255	02
2500	232	02
2600	245	02
2700	232	02
2800	202	02
2900	179	03
3000	160	04

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
3100	152	04
3200	152	04
3300	171	04
3400	172	04
3500	178	04
3600	182	04
3700	214	03
3800	239	06
3900	252	07
4000	243	09
4100	250	12
4200	252	13
4300	257	14
4400	265	14
4500	267	16
4600	262	17
4700	259	19
4800	260	19
4900	260	18
5000	258	17
5100	259	17
5200	258	16
5300	255	16
5400	256	14
5500	254	14
5600	251	13
5700	250	14
5800	250	14
5900	256	14
6000	259	15
6100	260	16

[illegible]

TABLE 3

RELEASED FROM

RATSCAT

DATE 5 March 1980

TIME 0923 MST

COORDINATES (WSTM)

X- 513.312.04

Y 357,958.56

3964.61

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHTS ARE METERS AGL OR FEET AGL XX.

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC	300	04
100	360	01
200	351	02
300	284	05
400	281	05
500	310	04
600	180	00
700	022	04
800	014	05
900	014	06
1000	023	05
1100	033	05
1200	033	04
1300	027	03
1400	024	03
1500	033	03
1600	013	03
1700	354	03
1800	355	01
1900	270	01
2000	180	02
2100	205	02
2200	203	03
2300	208	04
2400	217	05
2500	214	05
2600	203	05
2700	200	05
2800	198	05
2900	195	06
3000	194	05

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
3100	191	04
3200	205	06
3300	202	07
3400	211	06
3500	214	07
3600	219	08
3700	231	09
3800	242	10
3900	245	10
4000	256	11
4100	259	11
4200	262	12
4300	259	14
4400	255	16
4500	255	16
4600	255	17
4700	256	16
4800	251	17
4900	251	16
5000	251	16
5100	258	15
5200	261	16
5300	263	14
5400	262	15
5500	257	14
5600	257	13
5700	260	12
5800	253	12
5900	251	13
6000	251	14
6100	253	16

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
6200	251	17
6300	250	15
6400	262	18
6500	260	20
6600	258	24
6700	262	23
6800	265	22
6900	267	22
7000	269	21
7100	277	25
7200	275	27
7300	278	28
7400	286	29
7500	284	33
7600	278	34
7700	279	36
7800	278	38
7900	277	40
8000	276	37
8100	278	39
8200	277	38
8300	278	39
8400	275	36
8500	275	34
8600	275	36
8700	270	35
8800	269	33
8900	267	33
9000	264	31
9100	268	32
9200	269	31

STATION ALTITUDE 4126.59 FEET MSL
5 MAR. 80
ASCENSION NO. 71

SIGNIFICANT LEVEL DATA
0650010071
HOLLOMAN

STATION ALTITUDE 4126.59 FEET MSL
5 MAR. 80
ASCENSION NO. 71

TABLE 4

PRESSURE GEOMETRIC MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
876.5 4126.6	10.9 1.2	51.0
867.4 4411.3	8.6 -1.6	48.0
850.0 4761.4	8.3 -2.3	47.0
797.8 6668.8	4.3 -4.9	51.0
714.0 9608.2	-9 -13.7	37.0
700.0 10127.8	-7 -16.1	30.0
658.4 11736.5	-4 -20.0	20.0
579.0 15070.0	-7.3 -25.3	22.0
500.0 18759.2	-16.9 -32.0	24.0
400.0 24124.0	-30.4 -42.3	30.0
345.6 27486.1	-38.7 -49.4	31.0
300.0 30623.9	-47.6	
250.0 34516.0	-56.0	
244.4 34990.0	-56.5	
213.6 37829.6	-52.8	
200.0 39219.9	-55.5	
155.0 44551.7	-57.4	
150.0 45232.6	-58.8	
137.0 46989.4	-58.6	
114.2 50814.5	-66.1	
104.4 52616.3	-64.5	
100.0 53483.5	-65.0	
98.2 53847.8	-66.2	
70.0 60667.6	-63.3	
66.4 61740.1	-62.9	
62.5 62981.9	-59.2	
56.2 65161.9	-62.9	
50.0 67567.0	-58.1	
41.6 71387.1	-59.0	
31.8 77000.4	-55.7	

STATION ALTITUDE 4126.59 FEET MSL
5 MAR. 80 0915 HRS MST
ASCENSION NO. 71

UPPER AIR DATA
0650010071
HOLLOMAN

GEODETTIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

TABLE 5

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
4126.6	870.5	10.9	51.0	1071.9	657.5	250.0	6.0	1.000270
4500.0	864.6	8.6	47.8	1060.7	654.6	247.4	4.5	1.000263
5000.0	848.8	8.2	47.1	1048.5	654.2	238.7	2.4	1.000258
5500.0	833.2	7.0	48.3	1033.6	652.8	178.5	.8	1.000254
6000.0	817.9	5.9	49.4	1019.0	651.4	115.7	1.2	1.000249
6500.0	802.8	4.7	50.6	1004.5	650.0	230.8	1.5	1.000245
7000.0	787.9	3.7	49.4	989.5	648.8	243.8	4.4	1.000240
7500.0	773.2	2.8	47.0	974.3	647.7	244.7	7.7	1.000235
8000.0	758.7	1.9	44.7	959.3	646.7	247.6	8.8	1.000229
8500.0	744.5	1.1	42.3	944.5	645.6	251.3	9.5	1.000224
9000.0	730.6	.2	39.9	930.0	644.5	261.4	9.3	1.000220
9500.0	716.9	-.7	37.5	915.7	643.4	271.1	10.1	1.000215
10000.0	703.4	-.7	31.7	890.7	643.3	277.6	12.7	1.000210
10500.0	690.1	-.6	27.7	881.4	643.4	281.7	15.4	1.000205
11000.0	677.1	-.5	24.6	864.6	643.5	284.3	18.4	1.000200
11500.0	664.4	-.4	21.5	848.1	643.6	284.2	21.8	1.000195
12000.0	651.7	-.9	20.2	833.5	643.0	282.1	25.9	1.000192
12500.0	639.3	-2.0	20.5	820.8	641.7	279.3	28.0	1.000188
13000.0	627.1	-3.0	20.8	806.2	640.5	276.0	28.9	1.000185
13500.0	615.1	-4.1	21.1	795.9	639.3	275.9	28.0	1.000182
14000.0	603.4	-5.1	21.4	783.7	638.0	277.0	26.9	1.000179
14500.0	591.9	-6.1	21.7	771.7	636.8	281.3	28.5	1.000176
15000.0	580.6	-7.2	22.0	760.0	635.5	285.1	30.2	1.000173
15500.0	569.2	-8.4	22.2	748.6	634.0	288.2	32.2	1.000171
16000.0	558.0	-9.7	22.5	737.6	632.4	289.2	33.9	1.000168
16500.0	547.0	-11.0	22.8	726.6	630.9	289.4	35.4	1.000165
17000.0	536.2	-12.3	23.0	715.9	629.3	288.3	36.7	1.000163
17500.0	525.7	-13.6	23.3	705.4	627.7	287.4	37.6	1.000160
18000.0	515.3	-14.9	23.6	695.0	626.1	287.1	37.7	1.000157
18500.0	505.2	-16.2	23.9	684.8	624.5	287.0	37.3	1.000155
19000.0	495.0	-17.5	24.3	674.4	623.0	287.7	35.8	1.000152
19500.0	484.8	-18.8	24.8	663.8	621.4	288.6	35.6	1.000150
20000.0	474.8	-20.0	25.4	653.3	619.9	289.9	36.7	1.000147
20500.0	465.1	-21.3	25.9	643.1	618.3	290.3	38.4	1.000145
21000.0	455.5	-22.5	26.5	633.0	616.8	290.3	40.4	1.000143
21500.0	446.1	-23.8	27.1	623.1	615.2	287.5	41.6	1.000140
22000.0	436.9	-25.1	27.6	613.4	613.7	284.6	42.9	1.000138
22500.0	426.0	-26.3	28.2	603.9	612.1	281.8	44.1	1.000136
23000.0	419.1	-27.6	28.7	594.5	610.6	279.4	45.4	1.000134
23500.0	410.5	-28.8	29.3	585.3	609.0	280.2	47.6	1.000131

STATION ALTITUDE 4126.59 FEET MSL
5 MAR. 80 0915 HRS MST
ASCENSION NO. 71

UPPER AIR DATA
0650010071
HOLLOMAN
TABLE 5 (CONT)

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
24000.0	402.1	-30.1	-42.0	29.9	576.2	607.4	281.4	49.5	1.000129
24500.0	393.5	-31.3	-43.0	30.1	560.8	605.9	283.6	50.3	1.000127
25000.0	385.1	-32.6	-44.1	30.3	557.5	604.3	285.1	50.3	1.000125
25500.0	376.8	-33.8	-45.2	30.4	546.3	602.7	286.0	49.3	1.000123
26000.0	368.7	-35.0	-46.2	30.6	539.3	601.2	286.0	49.5	1.000121
26500.0	360.7	-36.3	-47.3	30.7	530.5	599.6	285.5	50.5	1.000119
27000.0	353.0	-37.5	-48.3	30.9	521.8	598.1	285.1	50.2	1.000117
27500.0	345.4	-38.7	-49.4	30.9**	513.2	596.5	284.8	49.1	1.000115
28000.0	337.7	-40.2	-52.2	25.9**	504.9	594.7	284.9	48.9	1.000113
28500.0	330.2	-41.6	-55.2	21.0**	496.6	592.9	285.1	49.0	1.000111
29000.0	322.8	-43.0	-58.5	16.0**	488.6	591.0	285.8	50.6	1.000109
29500.0	315.6	-44.4	-62.5	11.1**	480.6	589.2	286.2	51.6	1.000107
30000.0	308.6	-45.8	-67.9	6.2**	472.9	587.4	285.7	50.7	1.000105
30500.0	301.7	-47.2	-79.5	1.2**	465.2	585.5	284.2	49.9	1.000104
31000.0	294.8	-48.4			456.9	584.0	281.5	49.6	1.000102
31500.0	287.9	-49.5			448.5	582.0	279.8	51.6	1.000100
32000.0	281.3	-50.6			440.2	581.2	278.7	54.5	1.000098
32500.0	274.8	-51.6			432.1	579.8	278.8	58.7	1.000096
33000.0	268.4	-52.7			424.2	578.4	278.4	62.6	1.000094
33500.0	262.2	-53.8			416.4	577.0	278.7	65.9	1.000093
34000.0	256.1	-54.9			408.8	575.6	278.6	69.1	1.000091
34500.0	250.2	-56.0			401.3	574.1	278.8	72.3	1.000089
35000.0	244.3	-56.5			392.8	573.4	278.7	76.5	1.000087
35500.0	238.6	-55.8			382.4	574.3	278.5	81.6	1.000085
36000.0	233.0	-55.2			372.3	575.2	277.7	87.2	1.000083
36500.0	227.5	-54.5			362.5	576.0	276.8	93.0	1.000081
37000.0	222.2	-53.9			353.0	576.9	276.0	98.6	1.000079
37500.0	217.0	-53.2			343.7	577.7	275.2	104.3	1.000077
38000.0	211.9	-53.1			335.5	577.9	274.5	108.4	1.000075
38500.0	206.9	-54.1			329.1	576.6	273.9	111.8	1.000073
39000.0	202.1	-55.1			322.8	575.3	272.9	112.8	1.000072
39500.0	197.3	-55.6			316.0	574.6	271.7	112.0	1.000070
40000.0	192.7	-55.8			308.8	574.4	270.5	110.7	1.000069
40500.0	188.1	-56.0			301.7	574.1	269.4	108.8	1.000067
41000.0	183.7	-56.1			294.9	573.9	268.8	107.4	1.000066
41500.0	179.3	-56.3			288.1	573.7	269.2	106.7	1.000064
42000.0	175.1	-56.5			281.6	573.4	269.7	106.1	1.000063
42500.0	171.0	-56.7			275.1	573.2	270.7	106.0	1.000061
43000.0	166.9	-56.8			268.9	573.0	271.2	104.6	1.000060
43500.0	163.0	-57.0			262.7	572.7	271.1	100.4	1.000059

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4126.59 FEET MSL
5 MAR. 80 0915 HRS MST
ASCENSION NO. 71

UPPER AIR DATA
0650010071
HOLLONAN

GEODETIC COORDINATES
32.88865 LAT LEG
106.09965 LON DEG

TABLE 5 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
44000.0	159.1	-57.2		256.7	572.5	270.9	96.4	1.000057
44500.0	155.4	-57.4		250.9	572.3	270.9	92.4	1.000056
45000.0	151.7	-58.3		245.0	571.0	271.0	90.4	1.000055
45500.0	148.1	-58.8		240.6	570.4	271.4	90.8	1.000054
46000.0	144.5	-58.7		234.8	570.5	271.0	90.0	1.000052
46500.0	141.1	-58.7		229.2	570.6	269.9	88.1	1.000051
47000.0	137.7	-58.6		223.7	570.6	268.6	85.4	1.000050
47500.0	134.4	-59.6		219.2	569.3	268.9	81.9	1.000049
48000.0	131.1	-60.6		214.9	568.0	265.8	80.1	1.000048
48500.0	127.9	-61.6		210.7	566.7	265.3	80.0	1.000047
49000.0	124.8	-62.5		206.5	565.4	265.5	80.2	1.000046
49500.0	121.8	-63.5		202.4	564.1	265.9	80.9	1.000045
50000.0	118.9	-64.5		198.5	562.7	268.5	81.2	1.000044
50500.0	116.0	-65.5		194.6	561.4	267.2	79.3	1.000043
51000.0	113.1	-65.9		190.2	560.8	267.9	77.5	1.000042
51500.0	110.4	-65.5		185.2	561.4	268.0	73.5	1.000041
52000.0	107.7	-65.0		180.2	562.0	268.0	69.1	1.000040
52500.0	105.0	-64.6		175.4	562.6	268.3	66.9	1.000039
53000.0	102.4	-64.7		171.2	562.4	268.7	66.4	1.000038
53500.0	99.9	-65.1		167.3	562.0	269.4	67.9	1.000037
54000.0	97.5	-66.1		164.0	560.5	270.2	70.5	1.000037
54500.0	95.1	-65.9		159.8	560.8	270.5	69.4	1.000036
55000.0	92.7	-65.7		155.7	561.1	270.0	66.8	1.000035
55500.0	90.5	-65.5		151.8	561.4	270.9	61.4	1.000034
56000.0	88.3	-65.3		147.9	561.7	271.2	55.3	1.000033
56500.0	86.1	-65.1		144.1	562.0	271.6	49.1	1.000032
57000.0	84.0	-64.9		140.5	562.3	272.3	42.7	1.000031
57500.0	81.9	-64.6		136.9	562.5	273.3	36.3	1.000030
58000.0	79.9	-64.4		133.4	562.8	269.7	31.8	1.000030
58500.0	78.0	-64.2		130.0	563.1	264.0	27.8	1.000029
59000.0	76.0	-64.0		126.7	563.4	255.4	24.7	1.000028
59500.0	74.2	-63.8		123.4	563.7	243.1	23.3	1.000027
60000.0	72.4	-63.6		120.3	564.0	231.1	22.7	1.000026
60500.0	70.6	-63.4		117.2	564.3	227.2	20.6	1.000026
61000.0	68.9	-63.2		114.3	564.5	224.4	18.7	1.000025
61500.0	67.2	-63.0		111.4	564.8	228.5	16.6	1.000025
62000.0	65.6	-62.1		108.2	565.9	233.1	14.5	1.000024
62500.0	64.0	-60.6		104.9	567.9	237.9	13.2	1.000023
63000.0	62.4	-59.2		101.7	569.8	243.1	12.5	1.000023
63500.0	60.9	-60.1		99.6	568.7		11.9	1.000022

STATION ALTITUDE 4126.59 FEET MSL
5 MAR. 80 0915 HRS MST
ASCENSION NO. 71

UPPER AIR DATA
0650010071
HOLLOMAN

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LONG DEG

TABLE 5 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	59.5	-60.9		97.6	567.5	245.0	10.4	1.000022
64500.0	58.0	-61.8		95.7	566.4	247.6	8.8	1.000021
65000.0	56.6	-62.6		93.7	565.3	249.4	7.3	1.000021
65500.0	55.3	-62.2		91.3	565.8	248.4	5.9	1.000020
66000.0	54.0	-61.2		88.7	567.1	246.6	4.4	1.000020
66500.0	52.7	-60.2		86.2	566.5	238.6	3.2	1.000019
67000.0	51.4	-59.2		83.7	569.8	221.1	2.3	1.000019
67500.0	50.2	-58.2		81.3	571.1	189.8	1.9	1.000018
68000.0	49.0	-58.2		79.4	571.2	149.9	2.2	1.000018
68500.0	47.8	-58.3		77.5	571.0	127.4	3.1	1.000017
69000.0	46.7	-58.4		75.7	570.9	118.1	4.2	1.000017
69500.0	45.6	-58.6		74.0	570.7	115.9	4.7	1.000016
70000.0	44.5	-58.7		72.2	570.5	114.2	5.3	1.000016
70500.0	43.4	-58.8		70.6	570.4	111.1	5.5	1.000016
71000.0	42.4	-58.9		68.9	570.2	106.4	5.5	1.000015
71500.0	41.4	-58.9		67.3	570.2	101.7	5.6	1.000015
72000.0	40.4	-58.6		65.6	570.6	86.5	5.3	1.000015
72500.0	39.4	-58.3		64.0	571.0	67.1	5.4	1.000014
73000.0	38.5	-58.1		62.4	571.4	50.4	6.1	1.000014
73500.0	37.6	-57.8		60.8	571.8	33.6	6.5	1.000014
74000.0	36.7	-57.5		59.3	572.1	19.3	7.3	1.000013
74500.0	35.8	-57.2		57.8	572.5	8.3	8.5	1.000013
75000.0	35.0	-56.9		56.4	572.9			1.000013
75500.0	34.2	-56.6		55.0	573.3			1.000012
76000.0	33.4	-56.3		53.6	573.7			1.000012
76500.0	32.6	-56.0		52.3	574.1			1.000012
77000.0	31.8	-55.7		50.9	574.5			1.000011

STATION ALTITUDE 4126.59 FEET MSL
5 MAR. 80
ASCENSION NO. 71

MANDATORY LEVELS
0650010071
HOLLOMAN

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

TABLE 6

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUMID.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4958.	8.3	-2.3	47.	239.9	2.6
800.0	6590.	4.5	-4.8	51.	236.8	1.9
750.0	8305.	1.4	-9.7	43.	249.4	9.3
700.0	10118.	-7.	-16.1	30.	278.8	13.3
650.0	12061.	-11.1	-21.0	20.	281.8	20.5
600.0	14138.	-5.4	-24.0	21.	278.3	27.4
550.0	16357.	-10.7	-27.0	23.	289.5	35.0
500.0	18734.	-16.9	-32.6	24.	267.3	30.6
450.0	21297.	-23.3	-37.0	27.	288.6	41.2
400.0	24085.	-30.4	-42.3	30.	281.9	49.6
350.0	27152.	-38.0	-48.7	31.	285.0	49.7
300.0	30565.	-47.6			283.6	49.9
250.0	34443.	-56.0			278.8	72.3
200.0	39128.	-55.5			272.4	112.5
175.0	41915.	-56.5			269.7	106.1
150.0	45114.	-58.8			271.2	90.6
125.0	48854.	-62.5			265.3	80.2
100.0	53322.	-65.0			269.3	67.7
80.0	57778.	-64.4			270.3	32.3
70.0	60464.	-63.3			225.9	20.0
60.0	63600.	-60.6			244.1	11.0
50.0	67318.	-58.1			186.7	1.9
40.0	71919.	-58.5			79.9	5.3

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
5 MAR. 80 0915 HRS MST
ASCENSION NO. 64

SIGNIFICANT LEVEL DATA
0650030064
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 7

PRESSURE	GEOMETRIC ALTITUDE MILLIBARS MSL FEET	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT
879.0	4051.0	9.2	55.0
868.5	4377.5	8.2	43.0
850.0	4960.3	7.1	47.0
789.4	6946.7	3.9	45.0
779.4	7286.8	3.5	43.0
720.8	9352.6	-1.2	41.0
718.1	9451.1	-.3	29.0
700.0	10121.9	-.3	17.0
656.4	11813.3	.3	12.0
555.6	16126.7	-9.3	13.0
500.0	18772.9	-15.9	14.0
400.0	24147.9	-30.4	18.0
370.6	25918.5	-34.6	19.0
353.2	27018.0	-37.3	
300.0	30651.2	-47.3	
250.0	34550.3	-55.5	
236.0	35751.7	-58.6	
231.6	36141.0	-58.8	
218.4	37364.8	-55.2	
209.8	38212.2	-53.9	
200.0	39224.8	-53.7	
189.2	40396.4	-55.2	
184.0	40984.7	-53.7	
158.2	44148.0	-58.8	
150.0	45249.5	-58.8	
125.4	48924.7	-62.6	
111.0	51234.2	-67.2	
110.4	51484.4	-68.1	
105.0	52484.5	-65.4	
100.0	53464.0	-65.4	
82.2	57392.3	-66.2	
71.9	60082.7	-64.4	
63.6	62554.8	-65.1	
60.4	63604.9	-60.6	
51.4	66303.2	-63.1	
50.0	67467.6	-60.8	
39.2	72484.3	-59.5	
36.4	74025.9	-57.1	

STATION ALTITUDE 4051.00 FEET MSL
5 MAR. 60 0915 HRS MST
ASCENSION NO. 64

UPPER AIR DATA
0650030064
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 8

EOMETRIC LTIUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INJEX OF REFRACTION
							DIRECTION DEGREES(TN)	SPEED KNOTS	
4051.0	879.0	9.2	.6	55.0	1081.5	655.5	80.0	1.9	1.000271
4500.0	864.6	8.0	-3.6	43.8	1069.2	653.9	88.7	1.4	1.000261
5000.0	848.7	7.0	-3.5	47.0	1053.1	652.8	113.0	.8	1.000257
5500.0	833.1	6.2	-4.4	46.5	1036.7	651.8	171.1	.7	1.000252
6000.0	817.7	5.4	-5.3	46.0	1020.6	650.8	211.2	2.1	1.000248
6500.0	802.6	4.6	-6.1	45.4	1004.8	649.9	217.4	4.3	1.000243
7000.0	787.8	3.8	-7.1	44.7	989.1	648.9	215.5	5.3	1.000238
7500.0	773.1	3.0	-8.4	42.8	973.7	647.9	215.2	6.0	1.000233
8000.0	758.6	1.9	-9.6	42.3	959.5	646.6	218.6	6.4	1.000229
8500.0	744.4	.7	-10.7	41.8	945.6	645.2	230.0	7.3	1.000224
9000.0	730.5	-4	-11.9	41.3	931.8	643.8	242.8	9.2	1.000220
9500.0	716.8	-3	-16.5	28.1	914.3	643.8	254.3	11.4	1.000212
10000.0	703.5	-3	-21.0	19.2	897.3	643.7	262.9	14.0	1.000206
10500.0	690.0	-2	-23.0	15.9	880.1	643.8	272.6	17.7	1.000201
11000.0	677.0	.0	-23.9	14.4	863.0	644.0	278.3	21.8	1.000197
11500.0	664.5	.2	-25.0	12.9	846.2	644.2	281.5	26.2	1.000193
12000.0	651.7	-1	-26.0	12.0	831.1	643.9	279.4	28.3	1.000189
12500.0	639.2	-1.2	-26.8	12.2	816.8	642.5	275.6	29.5	1.000186
13000.0	627.0	-2.3	-27.6	12.3	806.2	641.2	271.8	28.6	1.000183
13500.0	615.0	-3.5	-28.4	12.4	794.1	639.9	271.1	28.5	1.000180
14000.0	603.2	-4.6	-29.1	12.5	782.1	638.6	274.3	29.3	1.000177
14500.0	591.7	-5.7	-29.9	12.6	770.4	637.2	279.2	30.7	1.000174
15000.0	580.5	-6.8	-30.7	12.7	758.8	635.9	283.3	32.5	1.000172
15500.0	569.2	-7.9	-31.5	12.9	747.4	634.6	284.6	34.4	1.000169
16000.0	558.5	-9.0	-32.3	13.0	736.2	633.2	284.9	36.4	1.000166
16500.0	547.4	-10.2	-33.2	13.1	725.1	631.8	284.4	38.4	1.000164
17000.0	536.6	-11.5	-34.0	13.3	714.2	630.5	283.9	39.2	1.000161
17500.0	526.0	-12.7	-34.9	13.5	703.5	628.8	283.5	39.6	1.000158
18000.0	515.6	-14.0	-35.8	13.7	692.9	627.2	284.1	38.5	1.000156
18500.0	505.5	-15.2	-36.7	13.9	682.6	625.7	284.9	37.7	1.000154
19000.0	495.5	-16.5	-37.5	14.2	672.2	624.2	285.8	37.4	1.000151
19500.0	485.1	-17.9	-38.4	14.5	661.9	622.5	285.4	38.6	1.000149
20000.0	475.2	-19.2	-39.3	14.9	651.8	620.9	284.5	40.6	1.000146
20500.0	465.4	-20.6	-40.1	15.3	641.8	619.2	283.9	42.4	1.000144
21000.0	455.8	-21.9	-41.0	15.7	632.0	617.5	283.1	43.6	1.000142
21500.0	446.5	-23.5	-41.9	16.0	622.3	615.9	282.0	43.9	1.000140
22000.0	437.5	-24.6	-42.9	16.4	612.9	614.2	280.5	44.8	1.000137
22500.0	428.5	-26.0	-43.8	16.8	603.6	612.5	278.6	45.9	1.000135
23000.0	419.5	-27.3	-44.7	17.1	594.4	610.9	278.6	47.3	1.000133
23500.0	410.9	-28.7	-45.6	17.5	585.4	609.2	279.2	48.8	1.000131

STATION ALTITUDE 4051.00 FEET MSL
5 MAR. 80 0915 HRS MST
ASCENSION NO. 64

UPPER AIR DATA
0650030004
JALLEN

GEODETTIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TAB LE 8 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
2400.0	402.5	-30.0	17.9	576.6	607.5	281.7	48.8	1.000129
2450.0	394.0	-31.2	18.2	567.3	606.0	284.1	48.9	1.000127
2500.0	385.6	-32.4	18.5	557.9	604.5	285.3	49.6	1.000125
2550.0	377.3	-33.6	18.8	548.7	603.0	285.7	50.3	1.000123
2600.0	369.3	-34.8	17.6**	539.7	601.5	284.9	51.1	1.000121
2650.0	361.3	-36.0	9.0**	530.8	599.9	284.0	51.4	1.000118
2700.0	353.5	-37.3	.3**	522.0	598.3	283.1	51.5	1.000116
2750.0	345.6	-38.6		513.4	596.6	283.9	50.9	1.000114
2800.0	338.0	-40.0		505.0	594.9	285.2	50.1	1.000112
2850.0	330.4	-41.4		496.7	593.1	286.0	49.9	1.000111
2900.0	323.1	-42.8		488.5	591.3	290.2	50.0	1.000109
2950.0	315.9	-44.1		480.6	589.6	289.0	51.9	1.000107
3000.0	308.9	-45.5		472.7	587.8	287.7	53.6	1.000105
3050.0	302.0	-46.9		465.0	586.0	286.1	55.0	1.000104
3100.0	295.1	-48.0		456.7	584.5	285.4	55.8	1.000102
3150.0	288.3	-49.1		448.3	583.2	285.4	56.1	1.000100
3200.0	281.7	-50.1		440.0	581.8	284.8	57.3	1.000098
3250.0	275.2	-51.2		431.8	580.4	283.8	59.1	1.000096
3300.0	268.8	-52.2		423.9	579.0	282.4	62.5	1.000094
3350.0	262.6	-53.3		416.1	577.7	281.0	66.4	1.000093
3400.0	256.5	-54.3		408.4	576.3	280.5	70.4	1.000091
3450.0	250.6	-55.4		400.9	574.9	280.1	74.4	1.000089
3500.0	244.7	-56.7		393.7	573.2	280.2	78.1	1.000088
3550.0	238.9	-58.0		386.7	571.5	280.3	81.9	1.000086
3600.0	233.2	-58.7		379.8	570.5	279.4	86.2	1.000084
3650.0	227.6	-57.7		362.2	571.8	278.6	90.6	1.000082
3700.0	222.3	-56.3		357.0	573.7	276.6	95.5	1.000080
3750.0	217.0	-55.0		346.5	575.4	274.8	100.6	1.000077
3800.0	211.9	-54.2		337.2	576.4	273.5	105.0	1.000075
3850.0	207.0	-53.8		328.8	576.9	272.4	109.4	1.000073
3900.0	202.1	-53.7		320.9	577.1	272.0	113.4	1.000071
3950.0	197.4	-54.1		313.9	576.7	271.6	117.3	1.000070
4000.0	192.8	-54.7		307.4	575.8	271.4	119.8	1.000068
4050.0	188.3	-54.9		300.6	575.5	271.2	122.0	1.000067
4100.0	183.9	-53.7		291.9	577.1	270.7	121.9	1.000065
4150.0	179.5	-54.5		286.1	576.0	270.1	120.7	1.000064
4200.0	175.3	-55.3		280.4	575.0	269.4	120.2	1.000062
4250.0	171.2	-56.1		274.8	573.9	268.8	120.4	1.000061
4300.0	167.1	-56.9		269.3	572.8	268.4	120.7	1.000060
4350.0	163.2	-57.8		263.9	571.8	269.2	121.3	1.000059

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
5 MAR. 80 0915 HRS MST
ASCENSION NO. 64

UPPER AIR DATA
0650030004
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 8 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
4400.0	159.3	-58.6		250.6	570.7	270.0	121.8	1.000058
4450.0	155.5	-58.8		252.8	570.4	270.8	115.3	1.000056
4500.0	151.8	-58.8		246.7	570.4	271.7	105.8	1.000055
4550.0	148.2	-59.1		241.1	570.0	272.3	96.2	1.000054
4600.0	144.6	-59.6		235.9	569.3	272.1	86.1	1.000053
4650.0	141.1	-60.1		230.8	568.6	271.9	76.0	1.000051
4700.0	137.7	-60.6		225.8	568.0	271.3	76.4	1.000050
4750.0	134.4	-61.1		220.9	567.3	270.8	77.2	1.000049
4800.0	131.2	-61.6		216.1	566.6	269.8	79.4	1.000048
4850.0	128.0	-62.2		211.4	565.9	268.7	82.5	1.000047
4900.0	124.9	-62.7		206.9	565.1	267.4	85.5	1.000046
4950.0	121.9	-63.7		202.7	563.8	265.7	88.2	1.000045
5000.0	118.9	-64.7		198.7	562.4	264.1	91.0	1.000044
5050.0	116.0	-65.7		194.8	561.1	264.0	90.1	1.000043
5100.0	113.1	-66.7		190.9	559.7	264.0	88.8	1.000043
5150.0	110.3	-68.1		187.4	557.9	264.5	85.2	1.000042
5200.0	107.6	-66.7		181.5	559.8	265.6	78.3	1.000040
5250.0	104.9	-65.4		175.9	561.5	267.4	71.4	1.000039
5300.0	102.3	-65.4		171.6	561.5	268.3	66.9	1.000038
5350.0	99.8	-65.4		167.4	561.5	269.3	62.6	1.000037
5400.0	97.4	-65.5		163.3	561.4	269.6	59.4	1.000036
5450.0	95.0	-65.6		159.4	561.2	269.5	57.9	1.000035
5500.0	92.6	-65.7		155.5	561.1	269.2	56.4	1.000035
5550.0	90.3	-65.8		151.8	561.0	268.4	52.9	1.000034
5600.0	88.1	-65.9		146.1	560.8	267.5	49.0	1.000033
5650.0	85.4	-66.0		144.5	560.7	268.4	45.2	1.000032
5700.0	83.8	-66.1		141.0	560.5	265.3	41.6	1.000031
5750.0	81.8	-66.1		137.6	560.5	264.0	37.9	1.000031
5800.0	79.8	-65.8		134.0	561.0	262.9	35.9	1.000030
5850.0	77.8	-65.5		130.5	561.4	262.2	35.0	1.000029
5900.0	75.9	-65.1		127.1	561.9	261.4	34.0	1.000028
5950.0	74.0	-64.8		123.7	562.3	261.0	33.7	1.000028
6000.0	72.2	-64.5		120.5	562.8	260.7	33.5	1.000027
6050.0	70.4	-64.5		117.6	562.7	260.2	32.9	1.000026
6100.0	68.7	-64.7		114.8	562.5	259.3	31.5	1.000026
6150.0	67.0	-64.8		112.1	562.3	258.3	30.2	1.000025
6200.0	65.4	-64.9		109.4	562.1	257.7	29.8	1.000024
6250.0	63.8	-65.1		106.8	561.9	257.4	29.9	1.000024
6300.0	62.2	-63.2		103.2	564.5	257.1	30.0	1.000023
6350.0	60.7	-61.0		99.7	567.4	257.6	31.1	1.000022

STATION ALTITUDE 4051.00 FEET MSL
5 MAR. 80 0915 HRS MST
ASCENSION NO. 64

UPPER AIR DATA
0650030004
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 8 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
6400.0	59.2	-60.9		97.2	567.6	258.1	32.1	1.000022
6450.0	57.8	-61.3		95.1	567.1	258.0	32.1	1.000021
6500.0	56.4	-61.7		92.9	566.6	255.5	28.6	1.000021
6550.0	55.1	-62.0		90.8	566.0	252.3	25.2	1.000020
6600.0	53.7	-62.4		88.8	565.5	246.6	20.2	1.000020
6650.0	52.4	-62.8		86.8	565.0	233.9	14.1	1.000019
6700.0	51.2	-62.7		84.7	565.2	206.3	9.6	1.000019
6750.0	49.9	-60.8		81.9	567.7	167.4	3.0	1.000018
6800.0	48.7	-60.7		79.9	567.9	132.6	9.2	1.000018
6850.0	47.6	-60.5		77.9	568.1	111.6	12.7	1.000017
6900.0	46.4	-60.4		76.0	568.2	100.2	11.6	1.000017
6950.0	45.3	-60.3		74.1	568.4	77.8	6.7	1.000017
7000.0	44.2	-60.1		72.3	568.6	18.8	5.2	1.000016
7050.0	43.2	-60.0		70.5	568.8	326.5	10.3	1.000016
7100.0	42.1	-59.9		68.8	568.9	309.3	19.5	1.000015
7150.0	41.1	-59.8		67.1	569.1	303.4	29.4	1.000015
7200.0	40.1	-59.6		65.5	569.3			1.000015
7250.0	39.2	-59.5		63.9	569.5			1.000014
7300.0	38.2	-58.7		62.1	570.5			1.000014
7350.0	37.3	-57.9		60.4	571.5			1.000013
7400.0	36.4	-57.1		58.8	572.6			1.000013

STATION ALTITUDE 4051.00 FEET MSL
5 MAR. 60
ASCENSION NO. 64

MANDATORY LEVELS
0650030004
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 9

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	4957.	7.1	-3.4	47.	109.8	.8	
800.0	6585.	4.5	-6.3	45.	217.2	4.5	
750.0	8301.	1.2	-10.3	42.	223.1	0.7	
700.0	10113.	-.3	-22.3	17.	265.6	14.8	
650.0	12059.	-.3	-26.1	12.	278.9	20.5	
600.0	14141.	-4.9	-29.4	13.	275.5	29.6	
550.0	16364.	-9.9	-33.0	13.	284.5	37.9	
500.0	18748.	-15.9	-37.2	14.	285.4	37.5	
450.0	21318.	-22.7	-41.6	16.	282.3	41.8	
400.0	24110.	-30.4	-46.9	18.	282.4	40.8	
350.0	27177.	-37.9			283.2	51.3	
300.0	30593.	-47.3			285.7	55.3	
250.0	34478.	-55.5			280.1	74.6	
200.0	39134.	-53.7			271.8	113.0	
175.0	41940.	-55.4			269.4	120.2	
150.0	45132.	-58.8			272.2	101.5	
125.0	48854.	-62.7			267.5	85.3	
100.0	53304.	-65.4			269.1	63.1	
80.0	57750.	-65.8			263.1	30.1	
70.0	60421.	-64.6			260.0	32.6	
60.0	63520.	-60.7			257.8	31.5	
50.0	67221.	-60.8			172.0	8.1	
40.0	71787.	-59.6					

DATE
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